

What is claimed is:

CLAIMS

1. An apparatus for combining a first video signal with a second video signal, wherein
5 said video signals represent video images and wherein at least the first video signal
represents a sequence of video images, said apparatus comprising:
- i) a first input for input of the first video signal,
 - ii) a second input for input of the second video signal,
 - iii) an output for output of a third video signal,
 - 10 iv) a keying-pattern detector connected to said second input for detecting a
predefined repetitive pattern, wherein said keying-pattern detector comprises:
 - a means for receiving and/or storing a representation of the predefined
repetitive pattern, and
 - an output that is arranged to provide a signal indicating whether said
15 predefined repetitive pattern is detected or not, and
 - v) a video switch connected to said first input, said second input, said output
and said output of the keying-pattern detector for continuously selecting a video signal
from one of the first and second input to be represented in a third video signal, said
selection being controlled by a signal from the output of the keying-pattern detector.
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2. The apparatus of Claim 1, wherein said predefined repetitive pattern includes
consecutively arranged sub-patterns.
3. The apparatus of Claim 1, wherein said representation of the predefined repetitive
25 pattern handled at the keying-pattern detector includes video image data of a
predetermined number of pixels corresponding to the number of pixels of a sub-pattern
of the predefined repetitive pattern.
4. The apparatus of Claim 3, wherein said video image data comprise data representing
30 the luminance of said predetermined number of pixels.
5. A method for combining a first video signal with a second video signal, wherein at
least the first video signal represents a sequence of video images, and said method
comprising the act of:
- 35 replacing image data in the second video signal with corresponding, in respect
of a position within an image, image data from the first video signal when said image
data in the second video signal includes a predefined repetitive pattern.

6. The method of Claim 5, wherein said predefined repetitive pattern is formed by consecutively arranged identical sub-patterns including a predetermined number of pixels, said method further comprising the act of:

5 detecting, before the act of replacing image data, the predefined repetitive pattern in the second video signal by comparing said predetermined number of pixels with a keying-pattern including at least one sub-pattern.

7. The method of Claims 5, wherein the act of replacing image data in the second video signal further comprises the act of:

10 replacing image data in the second video signal with corresponding, in respect of a position within an image, image data from the first video signal when the luminance data in said image data of the second video signal represent a predefined repetitive pattern.

15 8. The method of Claims 5, wherein said method for combining includes combining chroma sub-sampled image data of said first video image with chroma sub-sampled image data of said second video signal.

20 9. The method of Claim 8, wherein said predefined repetitive pattern is formed by consecutively arranged identical sub-patterns including a predetermined number of pixels, said method further comprising the act of detecting, before the act of replacing, a sub-pattern in the image data of the second video signal by comparing the luminance data of a number of pixels sharing the same data for chrominance, in accordance with chroma sub-sampling method utilised, with a keying-pattern representing luminance
25 data of the same number of pixels.

10. The method of Claims 5, further comprising the act of:
receiving the second video signal from a video graphics generator.

30 11. A method for combining a first video signal and a second video signal into a third video signal, wherein each video signal represent a video image and wherein at least the first and third video signals represents a sequence of video images, said method comprising the acts of:

receiving said first video signal from a first source,
35 receiving said second video signal from a second source,
detecting whether image data in a predetermined number of pixels of said second video signal corresponds to image data in pixels of a predefined repetitive pattern, and

if the image data in the predetermined number of pixels do not correspond to image data in the pixels of the predefined repetitive pattern, then outputting a portion of said second video signal that corresponds to said predetermined number of pixels, or

5 if the image data in the predetermined number of pixels do correspond to image data in the pixels of the predefined repetitive pattern, then outputting a portion of said first video signal that corresponds, in respect of position within an image, to said predetermined number of pixels.

10 12. The method of Claim 11, wherein said predefined repetitive pattern is formed by consecutively arranged identical sub-patterns including image data of a predetermined number of pixels, and said act of detecting includes the act of detecting the predefined repetitive pattern in the second video signal by comparing image data from said predetermined number of pixels with a keying-pattern including at least one sub-pattern.

15 13. The method of Claim 11, wherein the act of detecting further comprises:
detecting whether a predefined repetitive pattern is present in the luminance values of said predefined number of pixels of the second picture or not.

20 14. The method of Claim 11, wherein a video signal comprises representations of pixels of an image, and wherein each pixel is represented by a luminance value and two chrominance values.

25 15. The method of Claims 11, further comprising the act of:
receiving said first video signal from a video graphics generator.

16. A video signal, wherein each pixel of a video image of said video signal is represented by a luminance value and two chrominance values, said video signal comprising:
30 a digitally generated background, in which the luminance values of the pixels are defining a predefined repetitive pattern, and
a digitally generated video graphic foreground.

35 17. The video signal of Claim 16, wherein the predefined repetitive pattern is formed by consecutively arranged identical sub-patterns including a predetermined number of pixels.

18. The video signal of Claim 16, wherein the sub-pattern is defined in the luminance data of the video signal.

5 19. The video signal of Claim 16, wherein each picture of the video signal is chroma sub-sampled.

10 20. The video signal of Claim 19, wherein the sub-pattern is defined in the luminance data of the video signal and wherein the number of pixels represented in the sub-pattern corresponds to the number of pixels that share the same chroma data in the chroma sub-sampled video signal.